

REMARKS

Claims 1-30 are pending in the subject application. Claims 1-30 stand rejected under 35 U.S.C. 103(a). Claims 1, 2, 11, 13, and 14 have been amended. Support for the amendments are found in the specification on page 16, lines 15-22 and page 20, lines 1-19.

The Applicants appreciate the Examiner's thorough examination of the subject application and, moreover, the Examiner granting an Office Interview on October 27, 2004 and respectfully request reconsideration of the subject application based on the above amendments and the following remarks.

35 U.S.C. § 103(a) REJECTIONS

The Examiner has rejected claims 1, 9-13, 21, 23, 24, 26, 28, and 29 under 35 USC 103(a) as being anticipated by U.S. Patent Number 5,402,143 to Ge, et al. ("Ge" or the "Ge Reference") in view of U.S. Patent Number 6,222,512 to Tajima, et al. (Tajima" or the "Tajima Reference"); claims 2-4, 14-20, 22, 25, 27, and 30 under 35 USC 103(a) as being unpatentable over Ge in view of Tajima, further in view of U.S. Patent Number 5,572,341 to Ferguson ("Ferguson" or the "Ferguson Reference"); claim 5 under 35 USC 103(a) as being unpatentable over Ge in view of Tajima, further in view of U.S. Patent Number 5,760,858 to Hodson, et al. ("Hodson" or the "Hodson Reference"); claim 6 under 35 USC 103(a) as being unpatentable over Ge in view of Tajima, further in view of Ferguson and Hodson; claim 7 under 35 USC 103(a) as being unpatentable over Ge in view of Tajima, further in view of U.S. Patent Number 5,535,027 to Kimura, et al. ("Kimura" or the "Kimura Reference"); and claim 8 under 35 USC 103(a) as being unpatentable over Ge in view of Tajima, further in view of Ferguson and Kimura. The Applicants respectfully traverse these rejections in view of the above amendments and for reasons detailed below.

Claims 1, 9-13, 21, 23, 24, 26, 28, and 29

The Examiner again alleges that, Tajima teaches that, no light from the ELD is transmitted until every scan line, i.e., G1 to Gn, has been scanned and received its signal. Indeed, the Examiner asserts that, Tajima specifically discloses that a light output layer shines during each sub-frame when a specific time has elapsed after a complete set of data signals for each scan line is transmitted and extinguishes before succeeding complete set of data signals is transmitted. However, the passage cited by the Examiner does not disclose this feature.

Specifically, the passage describes a plasma display for controlling each pixel's color depth by controlling the length of the plasma discharge period in every subframe SF1 to SF6 of each frame. For example, for the frame shown in FIG. 8, each subframe SF1 to SF6 includes a reset period S1 and address period S2, and a display period S3. Accordingly, during a single frame, there will be a reset period, an address period, and a display period for SF1; a reset period, an address period, and a display period for SF2; a reset period, an address period, and a display period for SF3; and so forth to SF6. More specifically, as FIG. 10 shows, Tajima merely demonstrates how different gray levels (0 to 63) are achieved by varying whether each of the sub-frames is ON or OFF during each frame.

A person skilled in the art would not apply the Tajima driving method -- in which color depth of plasma display pixels is expressed by the length of the luminance output periods rather than by the magnitude of the luminance outputs -- to provide a pseudo impulse display by a light output layer shining when the liquid crystal layer with a light-blocking function has changed in accordance with an image to be displayed as taught by the present invention. Here again, the Applicants assert that Tajima shows that, in each frame, light output layers are potentially turned ON and OFF multiple times in each sub-frame SF-1 to SF-6. Accordingly, Tajima teaches away from one or more light output layers shine "after a complete set of data signals for each scan line is transmitted" and that the same one or more light output layers

extinguishes "before a succeeding complete set of data signals for each scan line is transmitted."

Additionally, Tajima does not teach, mention or suggest that the light output layers only shine after sufficient time has passed after the last scan signal for the liquid crystal between each of the substrates to reach its desired display intensity in respond to the scan signals and signal voltages. Indeed, according to FIG. 8 of Tajima, there is no lapse time between the address period S2 and the display period S3.

Furthermore, in the Advisory Action, the Examiner did not address the Applicants' argument that, comparing FIG. 8 of Tajima with FIG. 5 of the present invention, Tajima merely shows the waveforms for a single gate line, say G1. There are no other gate lines shown (say G2-G4). Therefore, there is no teaching that any light output layer shines "after a complete set of data signals for each scan line is transmitted" and/or extinguishes "before a succeeding complete set of data signals for each scan line is transmitted."

With respect to claims 26, 28, and 29, there is nothing in either the Ge or Tajima references that teaches, mentions or suggests that, the light output layer is adjusted in terms of luminance to a maximum luminance of the data signals for each scan line. Tajima is silent about the light output layer being adjusted in terms of the magnitude of the luminance output. Rather, Tajima adjusts light output in terms of length of the luminance output periods.

Thus, it is respectfully submitted that, claims 1, 9-13, 21, 23, 24, 26, 28, and 29 are not made obvious by Ge in view of Tajima and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claims 1, 9-13, 21, 23, 24, 26, 28, and 29 are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claims 2-4, 14-20, 22, 25, 27, and 30

Similarly, claims 2 and 14 also require that, one or more light output layers shine when a specific time has elapsed after a complete set of data signals for each scan line is transmitted to the gate (source) electrode and extinguishes before a succeeding complete set of data signals for each scan line is transmitted. However, the passage cited by the Examiner describes a plasma display for controlling each pixel's color depth by controlling the length of the plasma discharge period in every subframe SF1 to SF6 of each frame. Accordingly, during a single frame, there will be a reset period, an address period, and a display period for SF1; a reset period, an address period, and a display period for SF2; a reset period, an address period, and a display period for SF3; and so forth to SF6. Hence, as FIG. 10 shows, Tajima merely demonstrates how different gray levels (0 to 63) are achieved by varying whether each of the sub-frames are ON or OFF during each frame.

Additionally, Tajima does not teach, mention or suggest that the light output layers only shine after sufficient time has passed after the last scan signal for the liquid crystal between each of the substrates to reach its desired display intensity in respond to the scan signals and signal voltages. Indeed, according to FIG. 8 of Tajima, there is no lapse time between the address period S2 and the display period S3.

A person skilled in the art would not apply the Tajima driving method -- in which color depth of plasma display pixels is expressed by the length of the luminance output periods rather than by the magnitude of the luminance outputs -- to provide a pseudo impulse display by a light output layer shining when the liquid crystal layer with a light-blocking function has changed in accordance with an image to be displayed as taught by the present invention. Here again, the Applicants assert that Tajima shows that, in each frame, light output layers are turned ON and OFF multiple times in each sub-frame SF-1 to SF-6. Accordingly, Tajima teaches away from one or more light output layers shine "after a complete set of data signals for each scan line is transmitted" and that the same one or more light output layers extinguishes "before a succeeding complete set of data signals for each scan line is transmitted."

Nor can the Ferguson reference make up for the deficiencies of the Ge and Tajima references. Indeed, the Ferguson reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals.

With respect to claims 27 and 30, there is nothing in either the Ge or Tajima references that teaches, mentions or suggests that, the light output layer is adjusted in terms of luminance to a maximum luminance of the data signals for each scan line. Tajima is silent about the light output layer being adjusted in terms of the magnitude of the luminance output. Rather, Tajima adjusts light output in terms of length of the luminance output periods.

Accordingly, claims 2-4, 14-20, 22, 25, 27, and 30 are not made obvious by Ge in view of Tajima, further in view of Ferguson and, further, satisfy the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that the claims and all claims depending therefrom are allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 5

For the same reasons provided above that the Ge and Tajima references do not make obvious claim 2 of the present invention, the Ge and Tajima reference also do not make claim 5 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge and Tajima references. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 5 is not made obvious by Ge in view of Tajima, further in view of Hodson and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 5 is

allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 6

For the same reasons provided above that the Ge, Tajima, and Fergason references do not make obvious claim 2 of the present invention, Ge, Tajima, and Fergason, further in view of Hodson do not make claim 6 obvious. Nor can the Hodson reference make up for the deficiencies of the Ge, Tajima, and Fergason references. Indeed, the Hodson reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Therefore, it is respectfully submitted that, claim 6 is not made obvious by Ge in view Tajima, further in view of Fergason and further in view of Hodson and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 6 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 7

Nor can the Kimura reference make up for the deficiencies of the Ge and Tajima references. Kimura discloses a display device having a plurality of luminous sources arrayed in parallel with each other, a plurality of linear electrodes arrayed with each other, wherein the luminous sources are crossed with the linear electrodes, and a plurality of photoconductive layers provided at these crossed positions. See, e.g., Kimura, Abstract. Kimura, however, does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals. Accordingly, the combination of Ge in view of Tajima, further in view of Kimura does not teach, mention or suggest the present invention.

Therefore, it is respectfully submitted that, claim 7 is not made obvious by Ge in view of Tajima, further in view of Kimura and, further, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 7 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Claim 8

Nor can the Kimura reference make up for the deficiencies of the Ge, Tajima, and Ferguson references. Indeed, the Kimura reference does not teach, mention or suggest controlling light output layers to shine after a complete set of scanning signals and extinguish before the next complete set of scanning signals.

Therefore, it is respectfully submitted that, claim 8 is not made obvious by Ge in view of Tajima, further in view of Ferguson and further in view of Kimura and, moreover, satisfies the requirements of 35 U.S.C. 100, et seq., especially § 103(a). As such, the Applicants believe that claim 8 is allowable. Moreover, it is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

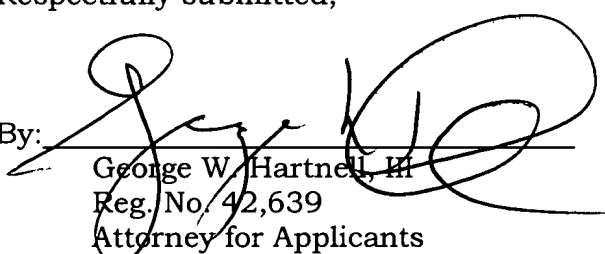
M. Kodon, et al.
USSN: 09/937,796
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The Applicants believe that no additional fee is required for consideration of the within Response. However, if for any reason the fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

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